

Remarks

I. Summary of Office Action

Claims 1-4 and 8-12 were pending in the application.

Claim 11 was objected to because of an informality.

Claims 1, 4, and 10-12 were rejected under 35 U.S.C. § 102(e) as being anticipated by Taylor et al. U.S. Patent No. 6,278,885 (hereinafter "Taylor").

Claims 2-3 and 8-9 were rejected under 35 U.S.C. § 103(a) as being obvious from Taylor in view of Yadav U.S. Patent Publication No. 2003/0149887 (hereinafter "Yadav").

The Examiner's objections to and rejections of the claims are hereby addressed.

II. Examiner Interview Summary

On October 1, 2010, the undersigned attorney for applicant held a telephonic interview with Examiner Khoshnoodi to discuss amendments to the claims proposed by the undersigned. During the interview, the Examiner indicated that the amendments to claims 1 and 4 submitted herewith overcame the novelty rejections of the claims pending in the Office Action.

Applicants would like to thank the Examiner for the courtesies extended during the Examiner Interview.

III. Summary of Applicants' Reply

Applicants respectfully request consideration of this Supplemental Reply to supplement the applicants' previous Reply to Office Action filed on October 4, 2010. In this Supplemental Reply, applicants have further amended claims 1, 4 and 10 besides the amendments presented in the Reply of

October 4, 2010. Specifically, applicants have removed the phrase "extracted from the information about the server port" from line 20 of claim 1, and from lines 19-20 of claims 4 and 10. These amendments serve to further clarify and more distinctly claim the subject matter of the invention. In this Supplemental Reply all the remaining amendments and contents other than the removal of the above-identified phrase are identical with those of the previously filed Reply to Office Action. Applicants respectfully request the Examiner to replace the Reply previously filed on October 4, 2010 with this Supplemental Reply, and consider this Supplemental Reply as a response to the Office Action of June 8, 2010.

Applicants hereby amend claims 1, 4 and 10 to more particularly and clearly define applicants' claimed invention. Applicants hereby amend claim 11 to correct a grammatical error. No new matter has been added and the amendments are fully supported by the specification. Support for the amendments to the claims can be found, for example, in the originally filed claims; in FIG. 6, numerals 620 and 650; in FIG. 4, step S420, FIG. 7, steps S701, S703, S705+S709, and FIG. 8, steps S805 and S807; and at page 9, paragraphs 72-73.

The Examiner's objections to and rejections of the claims are hereby addressed.

IV. The Objection to Claim 11

Claim 11 was objected to because of an informality.

Applicants hereby amend claim 11 to correct a grammatical error and properly indicate that a packet is allowed to bypass the firewall "if the destination port has been registered". No new matter has been added, and the amendment is fully supported by the originally filed application.

In view of the foregoing, applicants respectfully request that the objection be withdrawn.

V. The Prior-Art Rejections of the Claims

Claims 1, 4, and 10-12 were rejected under 35 U.S.C. § 102(e) as being anticipated by Taylor. Claims 2-3 and 8-9 were rejected under 35 U.S.C. § 103(a) as being obvious from Taylor in view of Yadav.

Independent claims 1, 4, and 10 are generally directed towards network security systems and methods for permitting trusted network communication programs to have server ports automatically registered in a firewall. The system stores a list of trusted programs (i.e., "permitted" programs registered in an "internal permitted program storage"), and allows a firewall flexible device to automatically register server ports for the trusted programs in an internal permitted port storage. Once a port is registered, inbound packet traffic is allowed to bypass the firewall only if the destination port of a packet is a registered port.

More specifically, an internal permitted program storage stores a list of programs permitted to have server ports registered by the firewall. When a network communication program uses a server port, a firewall flexible device determines whether the program is registered in the list of programs stored in the internal permitted program storage. If the program is registered in the list, an internal permitted port storage registers the server port. The firewall flexible device then blocks inbound packets whose destination ports are not registered in the port storage.

Taylor describes a system and method for network access control using adaptive proxies. A system administrator manually specifies which server ports are to be registered in a configuration information file (col. 6, lines 4-12). When a connection control packet is received, a dynamic packet filter module (DPF) determines whether the port on which the packet was received is registered, and transfers information about the packet to a proxy only if the port is a registered port (col. 5, line 39, through col. 6, line 25). When a data packet is received, the packet is either sent to its destination if the packet belongs to an existing connection, or is processed through a transparency filter if the packet belongs to a new connection (col. 12, lines 20-39).

The Office Action alleges that Taylor fully anticipates applicants' claimed invention. Applicants respectfully disagree for at least the following three reasons:

Firstly, applicants submit that Taylor in no way shows or suggests the claimed "internal permitted program storage for storing a list of programs permitted to have server ports registered by the firewall", as required by amended claims 1, 4, and 10. Indeed, the operation of the firewall of Taylor is in no way concerned with the identity of programs seeking to communicate through the firewall. As a result, Taylor does not teach or otherwise suggest an internal permitted program storage, or any other of means for storing a list of programs permitted to have server ports registered by the firewall.

Secondly, applicants submit that Taylor in no way teaches "a firewall flexible device" or other device "for determining whether the network communication program [seeking to use a

server port] is registered in the list of programs stored in the internal permitted program storage". Applicants' "firewall flexible device" of amended claim 1 both determines whether a communication program is registered in an internal permitted program storage (see claim 1, limitation starting with "a firewall flexible device..."), and determines whether a destination port of a packet has been registered in an internal permitted port storage (see claim 1, limitation starting with "wherein the firewall flexible device..."). While Taylor teaches a dynamic packet filter (DPF, 207) which determines whether a port on which a packet was received is registered in a configuration information file (col. 5, line 66, through col. 6, line 6), the DPF of Taylor is in no way concerned with the identity of programs seeking to communicate through a firewall, and fails to teach or otherwise suggest the claimed firewall flexible device for determining whether the network communication program is registered.

Finally, applicants submit that Taylor in no way shows or suggests "an internal permitted port storage" or other device for "registering the extracted information about the server port if [...] the network communication program [using the port] is registered in the list of programs stored in the internal permitted program storage", as required by amended claims 1, 4 and 10. At best, applicants submit that Taylor teaches a configuration information file storing information on which ports are registered (col. 6, lines 44-45). The configuration information file taught by Taylor, however, only stores ports if "the system administrator specifies [...] the ports [...] in the configuration file" (col. 6, lines 4-6). In particular, the configuration information file of Taylor is in no way described as registering ports based on the identity of particular

programs using the ports, much less based on the identity of programs listed in an internal permitted program storage.

For at least the reasons that Taylor fails to teach or suggest an internal permitted program storage, a firewall flexible device, or an internal permitted port storage in accordance with amended claim 1, applicants submit that claim 1 is novel and non-obvious. For at least the reasons that Taylor fails to teach or suggest storing a list of programs permitted to have server ports registered, determining whether a network communication program is registered in a stored list of programs, and registering information about a port if a particular program is registered in the program list, applicants submit that amended claims 4 and 10 are novel and non-obvious. Claims 2-3, 8, 9, 11, and 12, which each depend from one of claims 1 and 4, are novel at least because they depend from allowable claims. In view of the foregoing, applicants respectfully request that the rejection of claims 1-4 and 8-12 be withdrawn.

VI. Conclusion

The foregoing demonstrates that claims 1-4 and 8-12 are allowable. This application is therefore in condition for allowance. Reconsideration and allowance are accordingly respectfully requested.

Respectfully submitted,

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